



Schellman & Company, LLC  
4010 W Boy Scout Blvd, Suite 600  
Tampa, Florida 33607  
Tel: 1.866.254.0000  
Fax: 1.866.971.7070

R3 LLC  
2 London Wall Place, 12<sup>th</sup> Floor  
London, EC2Y 5AU

October 4, 2018

**RE: ROOT KEY CEREMONY WITNESSING MEMORANDUM**

To Management of R3 LLC:

On Friday September 14, 2018, Dan Paulson observed the root key ceremony on behalf of Schellman & Company, LLC ("Schellman") that was held at the R3 LLC ("R3") office facility located at 2 London Wall Place, London, EC2Y 5AU, United Kingdom.

Accordingly, we confirm the following:

1. Schellman meets the criteria of a qualified auditor as described in adjacent standards such as the *CA/Browser Forum Guidelines for the Issuance and Management of Extended Validation Certificates version 1.5.4*. Schellman understands that R3 is not an issuer of digital certificates but that this ceremony followed guidance from the CA/Browser Forum and WebTrust for Certification Authorities Principals and Criteria.
2. In advance of the root key ceremony, Schellman was provided with a copy of the following documents:
  - a. Corda Network Certificate Policy (CP) dated September 4, 2018
  - b. Root Key Generation Script
3. The Root Key Generation Script appeared to be consistent with the Certificate Policy and contained appropriate detail as to the actions to be performed during the key ceremony.
4. Effective controls were maintained to provide reasonable assurance that the Root Certificate Authority (CA) key pair was generated and protected in conformity with the procedures described in its CP and in the Root Key Generation Script. Schellman specifically observed the following controls in place during the key ceremony:
  - a. The key ceremony was performed in a dedicated room within an office suite that required badge access.
  - b. The key ceremony was video recorded and audit logs from the hardware security modules (HSMs) were maintained.

---

**About Schellman**

Schellman & Company, LLC is a global provider of assurance and compliance services. As the only company in the world fully accredited to provide a suite of services that includes SOC examinations, PCI DSS compliance validations and ISO 27001 certifications, Schellman offers clients the unique opportunity to achieve multiple compliance objectives through a single third party assessor. For further information, please visit [www.schellman.com](http://www.schellman.com).

- c. The root key and HSM tokens were stored in sealed tamper evident bags within padlocked Pelican cases that required a key to open and transferred to secure off-site storage by couriers. Additionally, subordinate root key and HSM tokens were stored in sealed tamper evident bags within the on-site safe that required a passcode to open.
  - d. Written logs were maintained for all transfer and use of keys and tokens, noting the unique tamper evident bag number for chain of custody.
  - e. The HSMs and HSM management laptops used during the key ceremony were in "offline mode" and were not connected to the Internet.
5. Schellman observed that all the procedures required by the Root Key Generation Script were performed by the following persons:
- a. Nigel King, Ceremony Director responsible for ensuring that participants understood their roles, that the security of the venue was preserved, and that the ceremony proceeded according to the script.
  - b. Wawrzek Niewodniczanski, Ceremony Administrator responsible for leading the technical aspects of the ceremony and executing the technical aspects of the script.
  - c. Thomas Nicholson, Assistant Ceremony Administrator responsible for assisting the Ceremony Administrator with the technical aspects of the ceremony and executing the technical aspects of the script.
  - d. Jonathan Sartin, Internal Witness who was responsible for signing off on each step in the ceremony, attesting that the key signing ceremony was carried out in accordance with the script, and ensuring that any deviations from the script were accurately documented.
  - e. Mike Cave, Security Officer responsible for ensuring that physical media was appropriately secured, received, and delivered from the correct locations. Additionally, was responsible for the integrity of the premises and equipment before, during, and after the ceremony.
  - f. Josie Tenga, responsible for ensuring that audio and video equipment was functioning throughout the ceremony and that any recording or live streaming of the ceremony was carried out.

Schellman did not perform any additional procedures above and beyond what is listed above.

Furthermore, this observation did not constitute a WebTrust for Certification Authorities examination as defined by the American Institute of Certified Public Accountants and Canadian Institute of Chartered Accountants.

Please notify R3 if you require any further information.

Sincerely,

A handwritten signature in black ink that reads "Douglas W. Barbin". The signature is written in a cursive, flowing style.

Douglas W. Barbin, CPA  
Principal  
Schellman & Company, LLC